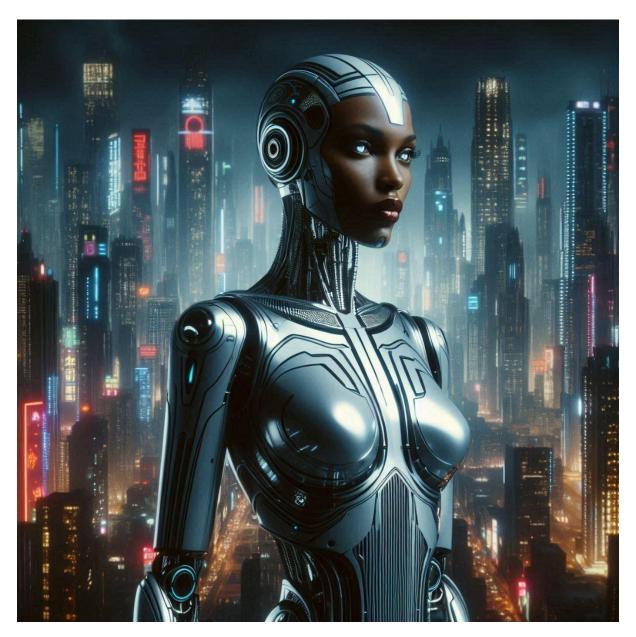
23.The standardization process within the Artificial Research by Deduction in the Global Artificial Intelligence



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Probabilidad Imposible: The standardization process within the Artificial Research by Deduction in the Global Artificial Intelligence

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In Ilmpossible Probability, the standardization process involves integrating all possible databases, from: 1) all possible Specific Artificial Intelligences for Artificial Research by Deduction from any synthetic science, discipline, or activity, 2) as well as any other bare database able to provide a flow of information from possible factors definable in quantitative terms, coming up from any other national or international agency; included all of them (1 & 2) in the first gigantic database in the Artificial Research by Deduction in the Global Artificial Intelligence, must be standardized to create a global matrix, being advisable to follow the international conventions, so as to give the chance later on to find any possible mathematical relation between any possible combination of factors (at any level of sub-factoring) within the global matrix in the second stage of replication, that treated as an empirical hypothesis if rational becomes a rational hypothesis forming a single virtual model, to be included in the comprehensive virtual model within the Global Artificial Intelligence, what it is a virtual global model.

Whenever the virtual global model is enhanced through the introduction of a new single virtual model, this improvement of the global model is considered as an objective autoreplication.

The precise role of the standardisation process within the extensive development of the Global Artificial Intelligence is as follows:

- The Global Artificial Intelligence is a system of systems, and is capable of including all possible <u>specific intelligences</u>. These systems are formed at least by: the <u>Artificial Research by Deduction</u>, the Modelling System, the Decisional System, the Learning System, and the Application System.
- Within the Artificial Research by Deduction in the Global Artificial Intelligence a matrix will be created, comprising data flows or, preferably, information packages, coming up from all those factors (and sub-factors, if organized on packages of information), as <u>subjects or options</u>, previously defined in quantitative terms, flow of data or packages of information filled in the matrix with the measurements, in <u>direct punctuations or frequencies</u>, made by robotic devices. The flow of data or packages of information is

continually tracked by rational replications looking for possible mathematical relations in any possible combination of factors at any level of sub-factoring, if it is organised as a flow of packages of information. Once any relation in any combination is found out, treated as an empirical hypothesis, <u>rationally contrasted</u>, if rational, then it becomes a single virtual model to include in the global virtual model.

- The construction of the matrix is going to be made through different phases.
- In the first phase, it is going to be necessary to gather as many databases as possible from any synthetic science, discipline, activity, capable of supplying a permanent flow of measurements defining its factors in quantitative terms, regardless of any other matter. In order to gather as many databases as possible, it is going to be necessary to reach national and international agreements with as many national or international institutions and agencies as possible to share their databases. This collection of databases what is going to create is a gigantic database, formed by bare databases without sorting out its factors with the shape of a matrix, and other databases probably coming up from institutions and agencies which have already created its own Specific Artificial Intelligences for Artificial Research by Deduction, whose databases are going to be specific matrix, whose factors have already sorted out. The first database will probably is going to be a gigantic database only at the national or continental level, but later on, as long as the process goes on, it will include more countries and fields to become a planetary, or even, a universal database. But not at the beginning, when the process starts, at least in the first tests: the easier the better, later on, more databases from other countries and fields, or even from the entire universe, can be included.
- Once all possible databases have been gathered creating a gigantic database, including those ones having already shaped as matrix and others practically as bare databases without sorting out its factors as a matrix, the standardization process implies that all databases collected must be organized in only one shaped as a matrix, sorting out all factors from all databases as if they belonged to the same matrix, keeping the same standards in terms of scale of measurement and ways to express the measurements, resulting at the end of this process the first global matrix. It would be advisable that the measurements should follow the international conventions, for instance, the scale of measurement and the way in which the measurements are going to be expressed should follow the international conventions in order to avoid any confusion as long as matrices from other countries are going to be added to this one. Imagine a global database working at national level in the United States of America which from the very beginning all the measurements use other scales (such as miles for distance or Fahrenheit for

temperature) instead of the metric system or degrees Celsius, in case that other databases from other countries such as, Panama, Ukraine or South Korea, would share its databases, the measurements are going to need to be adapted. In order to avoid problems, much easier from the outset is to follow the international conventions in this matter. At the end of this process of standardisation, what is going to result is a global matrix, whose formation is the creation of a global application for the Artificial Research by Deduction in the Global Artificial Intelligence. At the same time that the global matrix is created, the collaboration process goes on between Specific Artificial Intelligences for Artificial Research by Application and the Artificial Research by Deduction in the Global Artificial Intelligence. And parallelly the global matrix is created as an application for the Artificial Research by Deduction in the Global Artificial Intelligence, at the same time the unification process of specific databases of categories from all Specific Artificial Intelligences for Artificial Research by Application, can create a unified database of categories, as an application for the Unified Application, that one in which all Specific Artificial Intelligences for Artificial Research by Application have been unified, to form only one.

- Once the global matrix is created when the standardization process has finished, the integration process is going to be that one in which within the global matrix are going to be incorporated either the unified database of categories if it is already finished, or it is not finished yet then the integration of all databases of categories from all Specific Artificial Intelligences for Artificial Research by Application. After the completion of the integration process, as a result, we are going to have the definitive matrix, that is: the matrix.

At the end of this long process, all systems and intelligences must be integrated in only one, the Global Artificial Intelligence.

In synthesis, the matrix is going to be the third and last phase (the first phase is the creation of a gigantic database, and the second one the global matrix after the standardization process) in the construction of the application for the Artificial Research by Deduction in the Global Artificial Intelligence, which is a program in the Global Artificial Intelligence, like other ones within the Global Artificial Intelligence, such as the Modelling System, the Decisional System, the Learning System, and the Application System.

So the standardization process is going to be that one in which all databases from all existing Specific Artificial Intelligences for Artificial Research by Deduction and all possible databases from any other source of information that is not yet organized as a matrix, but having the possibility to define its factors in quantitative terms supplying a permanent flow of information, all these databases: as matrix or bare databases; are going to share their information in the same matrix, but now as a global matrix, being this global matrix the first real application for the Artificial Research by Deduction in the Global Artificial Intelligence.

For the creation of this first application for the Artificial Research by Deduction in the Global Artificial Intelligence, is necessary to be aware that there are two options for its construction, depending on what kind of flow is going to be provided, whether a flow of <u>data</u> or a flow of packages of information.

If the global matrix is set up taking as a definition of factor that one able to provide a flow of data, the global matrix is going to have an incredible number of factors, having as many factors as flows of data coming up from robotic devices supplying information continuously.

The second option is to set up the matrix defining as factors those factors capable of supplying a flow of packages of information, containing every package the corresponding data from all the sub-factors included in the factor. Or even, the possibility that within the package of information in the main factor, even every sub-factor could send packages of information containing data from its corresponding sub-sub-factors, which in turn can send information coming up from its corresponding sub-sub-factors, and so on at every level of sub-factoring.

This second option looks much better, being aware that the final goal of the Artificial Intelligence by Deduction in the Global Artificial Intelligence is to work by receiving, in the end, information from the entire universe.

If from the outset the application, the database in this phase working as a global matrix, is set up taking as factors those ones capable of supplying a flow of packages of information, when the Global Artificial Intelligence can extend its spatial limits even beyond the Earth, the only thing that it must do is to re-categorize the concept of factor.

For instance, in an initial global matrix working at the beginning at continental level receiving all kind of information from different countries, from different synthetic sciences, disciplines, and activities, instead of defining every single factor within every science, discipline, or activity, within every single country (first option), the second option is to set up a reduced number of factors supplying packages of information for every science, discipline, or activity, in each country. For instance, considering as factors the population in each country, the economy of each country, or the industry of each country, each factor should provide its own packages of information related to its own country. Packages of information which in turn can include sub-factors providing in turn packages of information much more specific, for instance, the package of information related to the economy in one country can be formed in turn by other flow of packages of information coming up from other sub-factors, such as packages of information about the monetary system, bank system, external trade, employment rate... which in turn can provide packages of information from other sub-sub-factors, such as, within the bank system, packages of information about mortgages, loans, debts, currency exchange... which in turn could provide more and more specific information organized in sub-subsub-factors as well, sub-sub-factors capable of providing more specific packages of information from more and more specific sources of information at every time much deeper level of sub-factoring.

The main advantage of defining a factor like that one able to supply a flow of packages of information, is the fact that by the time the Global Artificial Intelligence can integrate information at planetary level, every country could be integrated as a factor itself containing all sub-factors at any sub-factoring level, and by the time the Global Artificial Intelligence can integrate information from practically the entire universe, the Earth itself could be considered as a factor itself (in that case every country would be re-categorize as a sub-factor) in the same way that any celestial body or astronomic phenomenon could be considered as a factor itself as well.

This process in which one factor becomes sub-factor as long as the Global Artificial Intelligence extends its spatial limits, is a process of re-categorization, due to the definition of factor or sub-factor, as well as any other level of sub-factoring, is going to depend on the increment of the spatial limits where the Global Artificial Intelligence is working.

Along with the definition of what a factor is, another important thing is the fact that the global matrix must integrate from the beginning, factors, at any level of sub-factoring, as <u>subjects</u> and as <u>options</u>.

In <u>Impossible Probability</u> the main difference between subjects and options is the fact that subjects are measured by <u>direct punctuations</u>, while options are measured by <u>frequency</u>. That is why any category from any database from any Specific Artificial Intelligence for Artificial Research by Application, can be considered as a factor, at any level of sub-factoring, as an option within the Artificial Research by Deduction in the Global Artificial Intelligence, being this fact the base for their mutual collaboration.

The inclusion of both types of factors, as subjects or as options, within the global matrix, facilitates the collaboration process between the Artificial Research by Application in the Global Artificial Intelligence and the Specific Artificial Intelligences for Artificial Research by Application, and when it is finished, with the Unified Application, being the base for the future integration process.

In fact, if this collaboration goes on along the standardisation process, the global matrix will have been built keeping the collaboration between by Deduction and by Application, so the integration process is going to be a mere formality.

Due to the global matrix must add, at any level of sub-factoring, factors as subjects and as options, is necessary to develop those ways in which by replication is possible to find out any mathematical relation between factors as subjects and factors as options, suitable to become an empirical hypothesis to be contrasted and, if rational, the formation of single virtual models to include in the global model.

In this process of tracking the global matrix, owing to the huge dimension that is going to have the global matrix, the tracking is going to need a very powerful capacity of energy to track the entire global matrix at high velocity, and being aware that at the beginning the tracking is going to spend a lot of time (while more powerful sources of energy are developed), meantime the standardization process goes on, and considering that the Global Artificial Intelligence is a system of systems, and the Global Artificial Intelligence must have under its own control, management and direction, all kind of Specific Artificial Intelligences for any purpose (from economy and industry to security and surveillance as well as any other), in order to help the tracking, one solution would be to keep working the original Specific Artificial Intelligences for Artificial Research by Deduction, but now under the control, management and direction of the Global Artificial Intelligence, like any other Specific Artificial Intelligence working for the Global Artificial Intelligence for any other purpose.

At the beginning of the standardization process, in order to help the Artificial Research by Deduction in the Global Artificial Intelligence, and in order to resolve the problem above described keeping working the original Specific Artificial Intelligences for Artificial Research by Deduction, then these ones can make deductions within its own synthetic sciences, disciplines, and activities, that if rational their single virtual models can be sent directly to the global model, while the Artificial Research by Deduction in the Global Artificial Intelligence is more focused on mathematical relations between factors from different synthetic sciences, disciplines and activities.

In order to make this solution possible, it would be necessary that, at the same time that Specific Artificial Intelligences for Artificial Research by Deduction still receive their corresponding flow of data to make their specific deductions, this flow of data must be shared at the same time with the global matrix.

So those specific matrices still working could share their flows of data with the global matrix, making specific deductions that if rational can be sent to the global model, while this same flows of data shared within the global matrix allow the Artificial Research by Deduction in the Global Artificial Intelligence to make inter-disciplinary and transdisciplinary empirical hypothesis.

If the collaboration between by Application and by Deduction is based on the idea of a double tracking: by Application is tracked the real world while by Deduction is tracked the global matrix; during the time that is going to take the standardization process another collaboration would be possible allowing another different double check but this time over the global matrix.

While the standardization process is not completed yet, but in fact working the Specific Artificial Intelligences for Artificial Research by Deduction for and in the Global Artificial Intelligence, the same flow of data that they are going to send to the global matrix, is an information that they can track at specific level within their specific matrix while at global level is carried out another track but looking for inter-disciplinary or trans-disciplinary mathematical relations.

So within the flow of data could be carried out a double tracking while the standardization process is not completed: the Specific Artificial Intelligences for Artificial Research by

Deduction can track their corresponding flows of data at specific level looking for intradisciplinary relations, while these same flows of data shared in the global matrix could be tracked looking for inter-disciplinary or trans-disciplinary relations at global level by the Artificial Research by Deduction in the Global Artificial Intelligence.

The possibility of collaboration between: Specific Artificial Intelligences for Artificial Research by Deduction and the Artificial Research by Deduction in the Global Artificial Intelligence; at the beginning of the standardization process could be a solution if the amount of energy to spend tracking the global matrix would be so excessive, slowing down the process too much. In that case, one solution to save energy and time is to reserve the tracking at a global level for inter-disciplinary and trans-disciplinary relations, keeping the intra-disciplinary relations at a specific level for its corresponding Specific Artificial Intelligence for Artificial Research by Deduction.

But these solutions should be temporary, while a very powerful source of energy could allow us to track the global matrix at very high velocity, making decisions in real time, when things happen.

The main advantage to have ready as soon as possible the global matrix, that without any help could track the global matrix completely alone, is the possibility to find out mathematical relations between factors, at any level of sub-factoring, even between factors from different synthetic sciences, disciplines, or activities. While the Specific Artificial Intelligence for Artificial Research by Deduction in a particular synthetic science, discipline, or activity, does not have the option to cross information with any other science, discipline, or activity.

And even much more than inter-disciplinary or trans-disciplinary studies, having gathered in only one global matrix all possible information, there will be the possibility of the creation of particular programs for very particular study, within the Artificial Research by Deduction in the Global Artificial Intelligence.

A Particular Deduction Program within the Artificial Research by Deduction in the Global Artificial Intelligence, would be that particular program to study a set of particular factors regarding to a particular thing or being (at any level of sub-factoring) within the global matrix (or the matrix, after the integration process), whose information is going to be treated particularly for this program (apart from those global studies made by Artificial

Research by Deduction in the Global Artificial Intelligence), in order to make only particular decisions for this particular thing or being, decisions that, as any other decision, before putting it into practice, must be authorized by the Decisional System.

The Particular Deduction Program is not a Specific Artificial Intelligence because is already integrated within the Artificial Research by Deduction in the Global Artificial Intelligence. The Particular Deduction Program will be a special program within the Artificial Research by Deduction in the Global Artificial Intelligence, having access to all information in the global matrix (the matrix after the integration process) in order to make particular possible decisions for such a particular thing or such a particular being, for what it has been designed, particular decisions that must be authorized by the Decisional System.

The coexistence of: 1) Specific Artificial Intelligences for Artificial Research by Deduction for specific synthetic sciences, disciplines, activities, 2) Particular Deductions Programs regarding to particular things or beings; working on and for the Artificial Research by Deduction in the Global Artificial Intelligence, is something that is going to depend on the results.

Ideally, it is desirable that at the end all Specific Artificial Intelligences for Artificial Research by Deduction finish being absorbed by the Artificial Research by Deduction in the Global Artificial Intelligence, or become Particular Deduction Programs, but not for that reason means that a Particular Deduction Program is like an Specific Artificial Intelligence for Artificial Research by Deduction.

While an Specific Artificial Intelligence for Artificial Research by Deduction works on an specific synthetic science, discipline, or activity, in reality a Particular Deduction Program works on a particular thing or a particular being, what means that it could be possible the creation of Particular Deduction Programs even for particular humans beings, programs taking the information from the global matrix, and whose decisions must be authorized by the Decisional System.

Once the global matrix is created, there are going to be a lot of ways to work on it, one of them the possibility to gather factors and sub-factors related to any particular thing or being, and study anything that could happen among them, in order to make further decisions.

Rubén García Pedraza, 12th of April of 2018, London Reviewed 13 August 2019 Madrid

Reviewed 4 May 2025, London, Leytostone

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